STATE OF MARYLAND

DHMH

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April 2, 2010

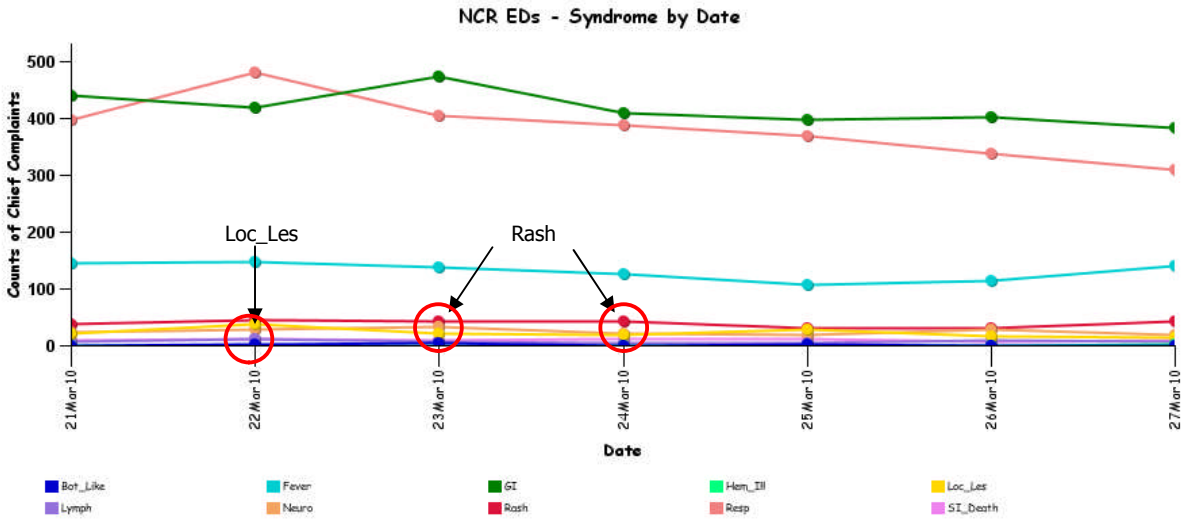
Public Health & Emergency Preparedness Bulletin: # 2010:12
Reporting for the week ending 03/27/10 (MMWR Week #12)

CURRENT HOMELAND SECURITY THREAT LEVELS

National: **Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)**
Maryland: **Yellow (ELEVATED)**

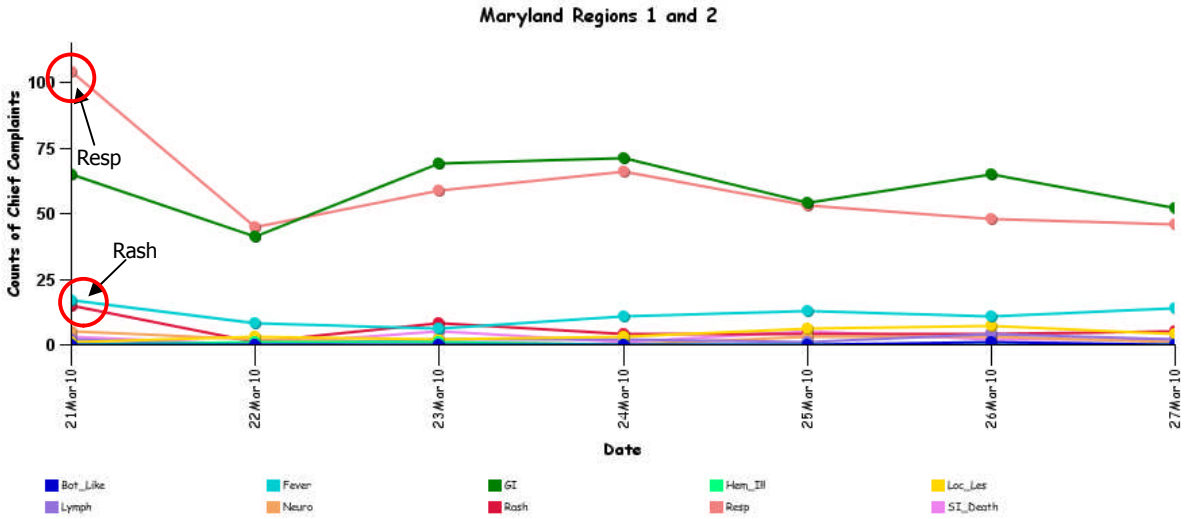
SYNDROMIC SURVEILLANCE REPORTS
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled.
Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

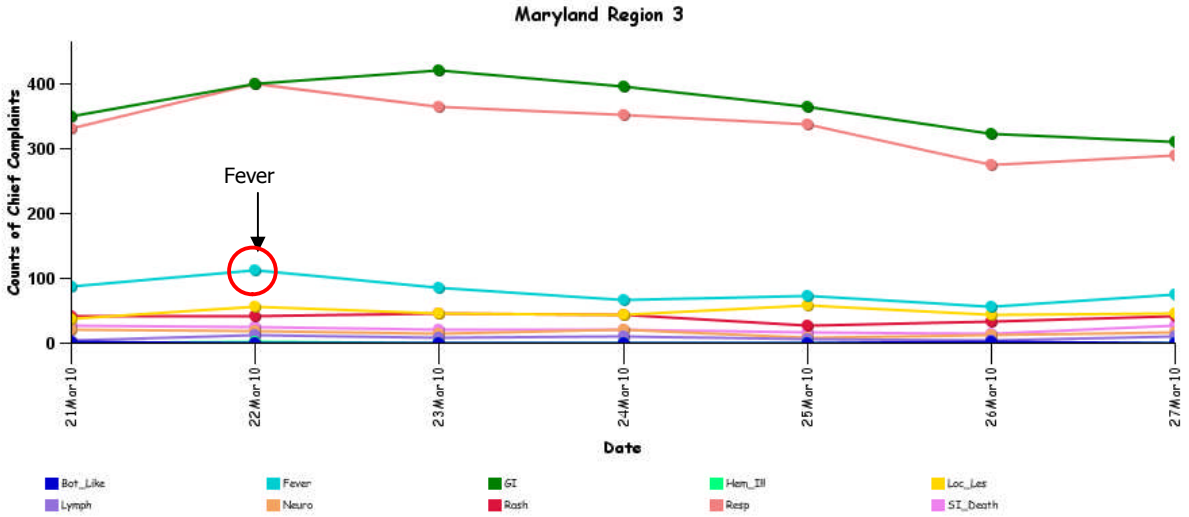


* Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

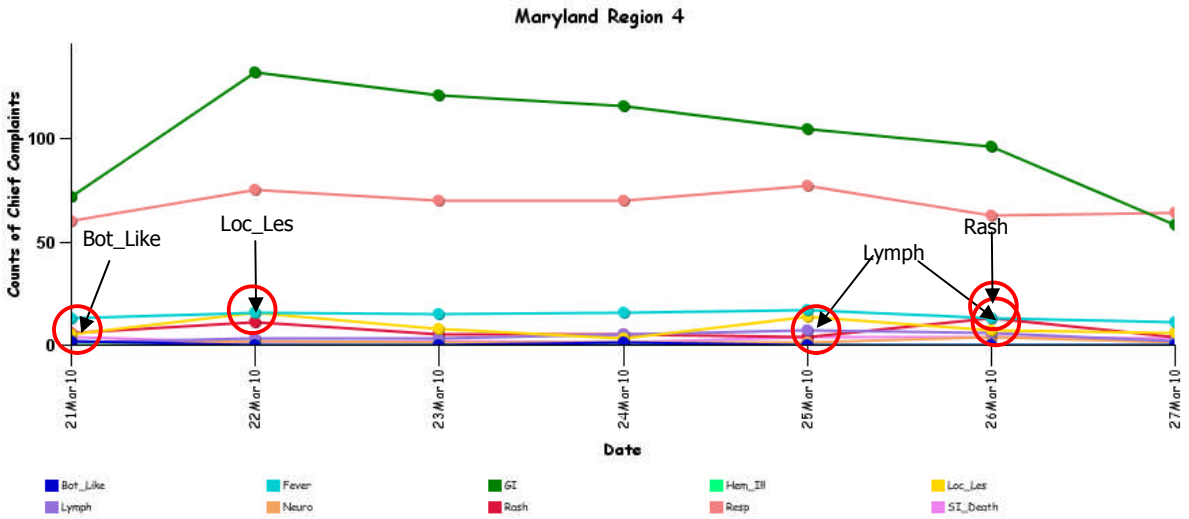
MARYLAND ESSENCE:



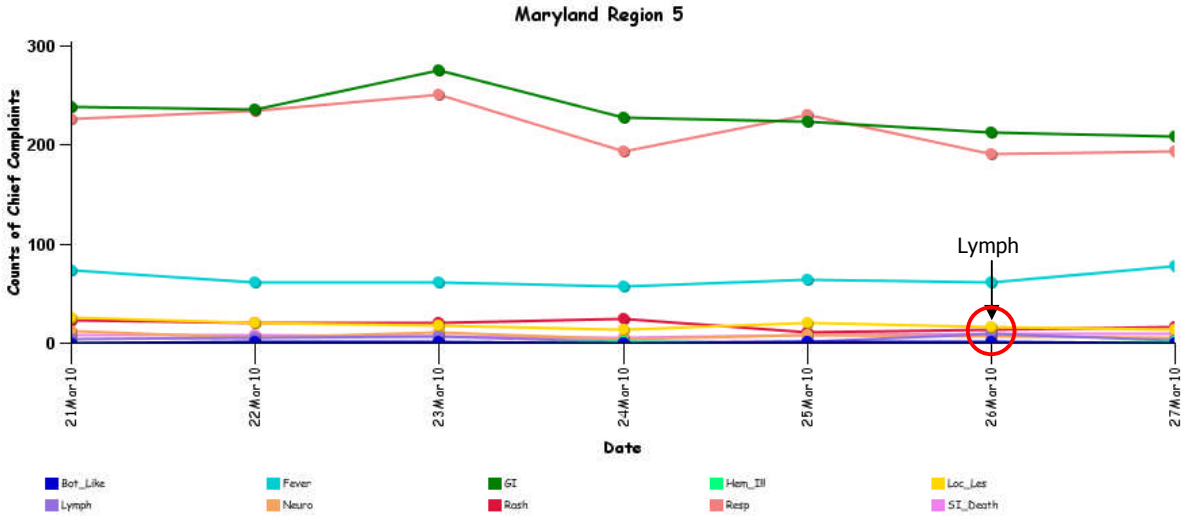
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore city, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE

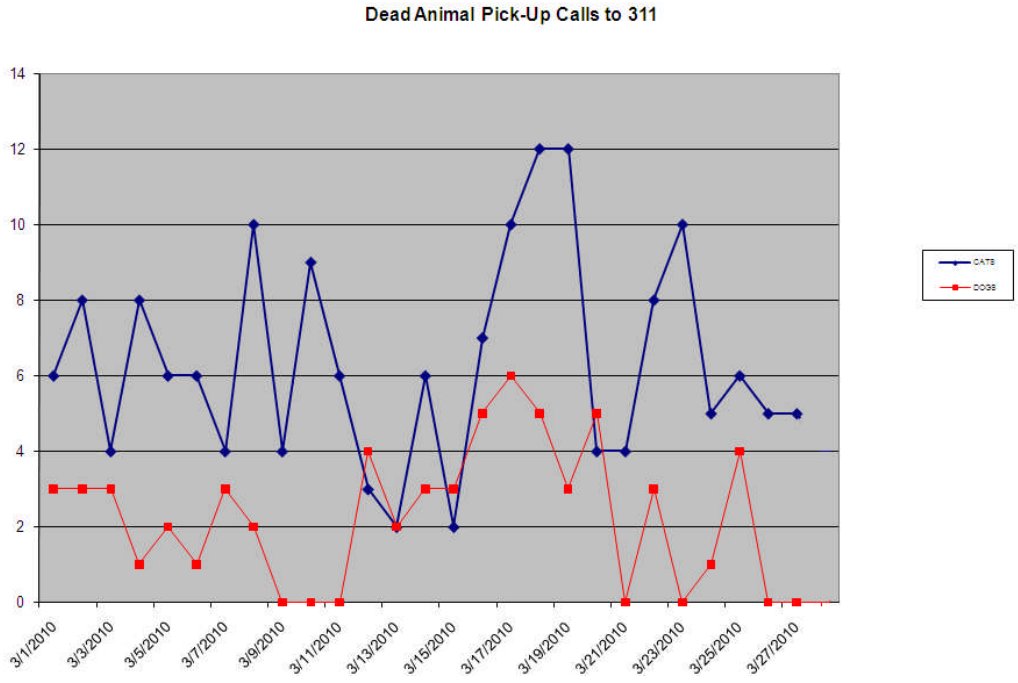


* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



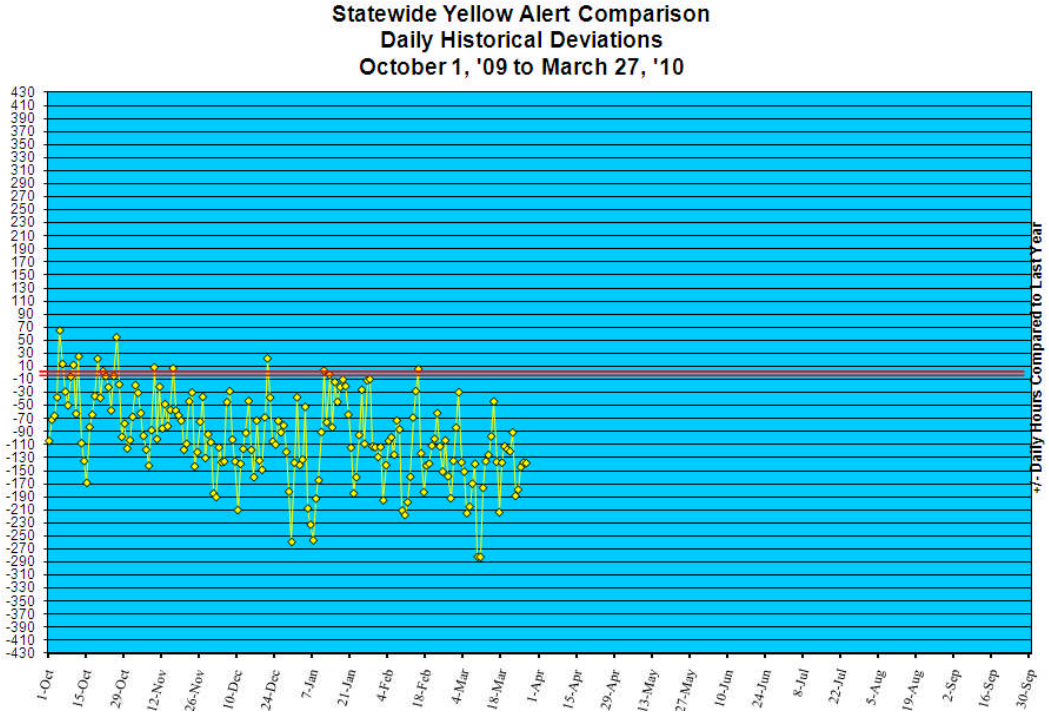
* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

BALTIMORE CITY SYNDROMIC SURVEILLANCE PROJECT: No suspicious patterns in the medic calls, ED Syndromic Surveillance and the animal carcass surveillance. Graphical representation is provided for animal carcass surveillance 311 data.



REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/09.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in February 2010 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (March 21- March 27, 2010):	10	0
Prior week (March 14- March 20, 2010):	16	0
Week#12, 2009 (March 22- March 28, 2009):	11	0

4 outbreaks were reported to DHMH during MMWR Week 12 (March 21-27, 2010)

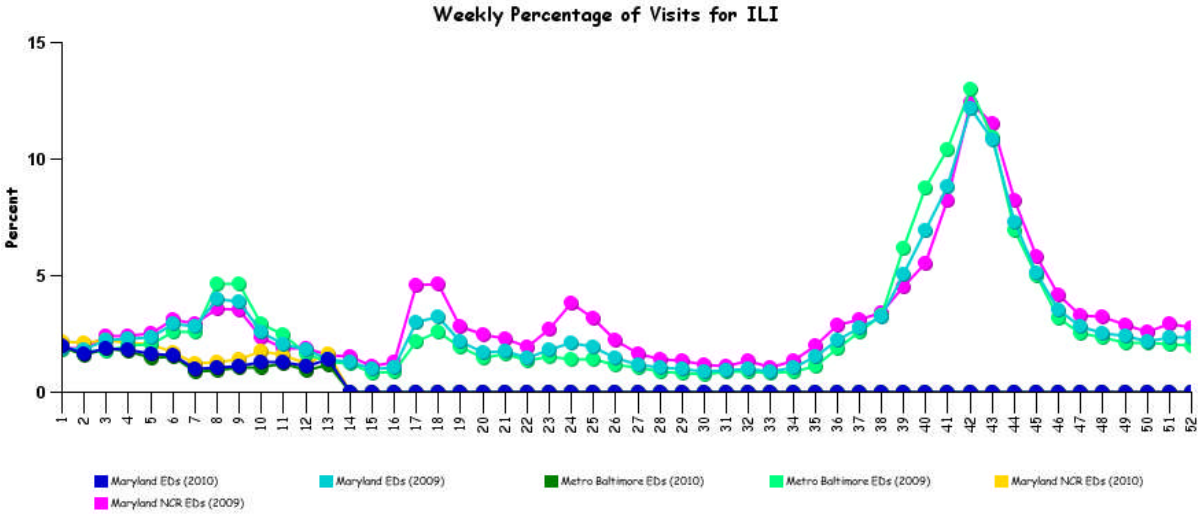
4 Gastroenteritis outbreaks
2 outbreaks of GASTROENTERITIS in Nursing Homes
1 outbreaks of GASTROENTERITIS in Assisted Living Facilities
1 outbreak of GASTROENTERITIS in an Adult Day Care

MARYLAND INFLUENZA STATUS: Influenza activity in Maryland for Week 12 is SPORADIC.

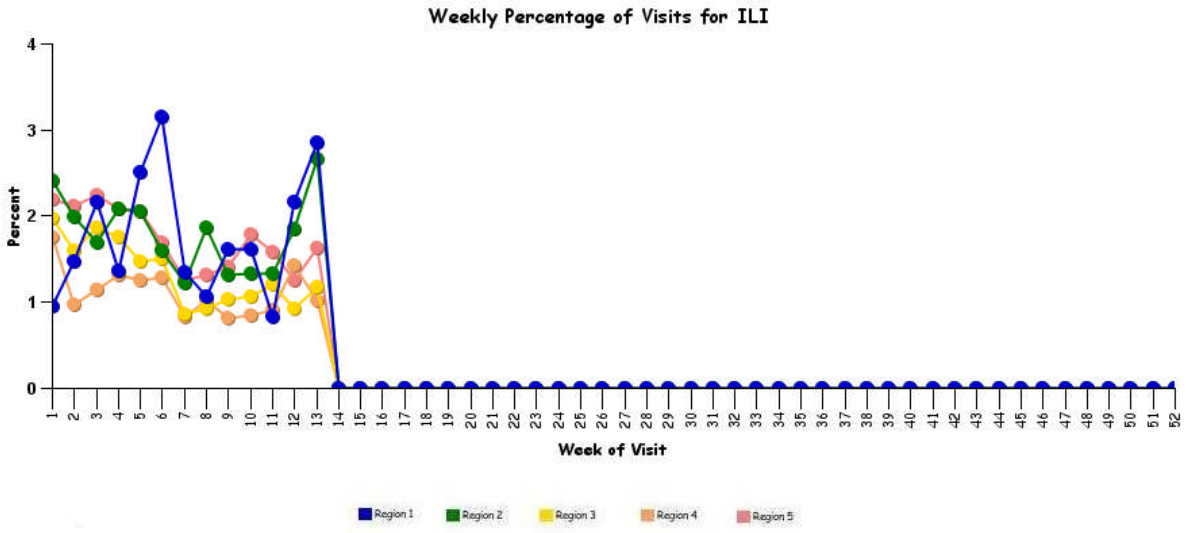
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the
week.



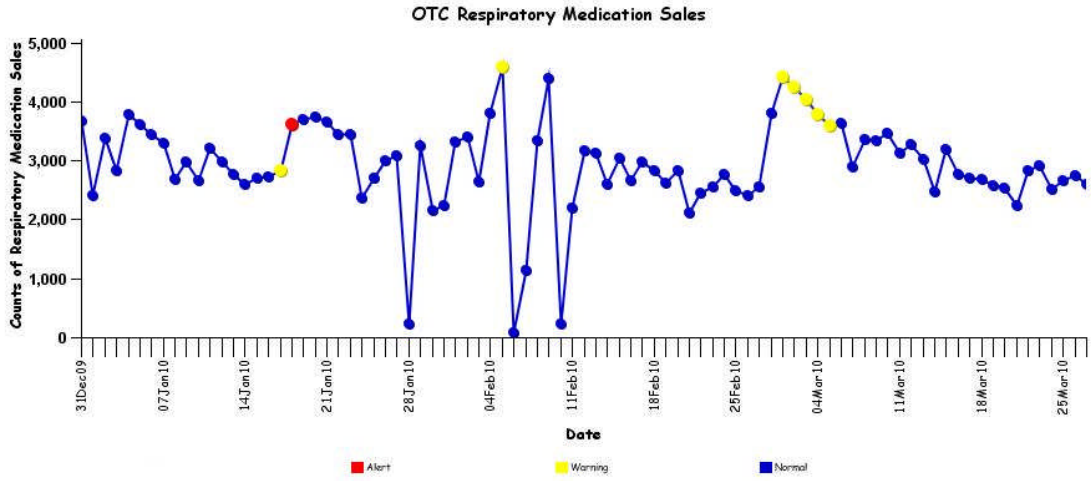
* Includes 2009 and 2010 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2010 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE:

WHO Pandemic Influenza Phase: Phase 6: Characterized by community level outbreaks in at least one other country in a different WHO region in addition to the criteria defined in Phase 5. Designation of this phase will indicate that a global pandemic is under way. Definition of Phase 5 is characterized by human-to-human spread of the virus into at least two countries in one WHO region. While most countries will not be affected at this stage, the declaration of Phase 5 is a strong signal that a pandemic is imminent and that the time to finalize the organization, communication, and implementation of the planned mitigation measures is short.

US Pandemic Influenza Stage: Stage 0: New domestic animal outbreak in at-risk country

**More information regarding WHO Pandemic Influenza Phase and US Pandemic Influenza Stage can be found at: http://preparedness.dhmh.maryland.gov/Docs/PandemicInfluenza/PandemicInfluenzaResponseAnnex(Version7.2).pdf

AVIAN INFLUENZA-RELATED REPORTS:

WHO update: As of March 16, 2010, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 489, of which 289 have been fatal. Thus, the case fatality rate for human H5N1 is about 59%.

AVIAN INFLUENZA, HUMAN (EGYPT): 22 March 2010, The Egyptian Ministry of Health on Sunday evening [21 Mar 2010], [announced] the discovery of a human case of bird flu [avian influenza (H5N1) virus infection]. The case is a child, aged 4 years, resident in Beni Suef [governorate], bringing the number of [people] infected with the disease since it appeared [in Egypt in 2006] to 107.The Ministry's statement [indicated that the child had been admitted to] Beni Suef General Hospital on 18 Mar 2010 suffering from high fever, cough, runny nose and pneumonia after exposure to infected birds. The child [received Tamiflu treatment and was transferred] to a hospital in the capital in view of the patient's poor condition.

H1N1 INFLUENZA (Swine Flu):

INFLUENZA PANDEMIC (H1N1), WHO UPDATE: 27 Mar 2010, The most active areas of pandemic influenza virus transmission currently are in parts of Southeast Asia, West Africa, and in the tropical zone of the Americas. After a period of sustained pandemic influenza transmission in Thailand over the past 2 months, overall activity now appears to be decreasing. In West Africa, limited data suggest that active transmission of pandemic influenza virus persists without clear evidence of a peak in activity.

In Central America and in the tropical zone of South America, an increasing trend of respiratory disease activity associated with circulation of pandemic influenza virus has been reported since early March 2010 in an increasing number of countries. Although pandemic influenza virus continues to be the predominant influenza virus circulating worldwide, seasonal influenza B viruses are predominate in East Asia, and have been increasingly detected at low levels across southeast and western Asia, eastern Africa, and in parts of Europe.

In Southeast Asia, pandemic influenza virus transmission has remained active and geographically widespread in Thailand since mid February 2010 and has been increasing since early March in Malaysia. In Thailand, the overall intensity of respiratory disease activity was reported to be low to moderate, and activity now appears to be decreasing since mid March [2010]; 10-22 percent of sentinel respiratory samples from patients with ILI [influenza-like illness] tested positive for pandemic influenza during the most recent reporting week. In Malaysia, limited data suggest increasing detections of pandemic H1N1 cases over the past 2 weeks, although the extent and severity of illness is not currently known. Low numbers of seasonal influenza B viruses continue to be isolated in Thailand and in other parts of Southeast Asia. In South Asia, pandemic influenza virus transmission remains variable across the subcontinent. In Bangladesh, an increasing trend in respiratory disease activity and increasing detections of H1N1 cases has been reported since late February 2010; however, overall intensity of disease activity remains low. In India, although overall pandemic influenza activity remains low, pandemic H1N1 cases continue be reported in Western India.

In East Asia, pandemic influenza virus transmission has declined substantially. Rates of ILI/ARI [acute respiratory infection] have returned to near baseline in Japan and Republic of Korea. In China, although overall ILI and pandemic influenza virus circulation has decreased substantially, circulation of seasonal influenza B viruses continues to be active (accounting for approximately 85 percent of all influenza viruses isolated during recent weeks). Similarly, in Mongolia, after experiencing a 1st peak of ILI activity due to circulation of pandemic influenza virus during November 2009, a 2nd recent sharp peak of ILI activity occurred during late February and early March 2010 exclusively as a result circulating seasonal influenza B viruses. Overall influenza activity continues to remain low in Hong Kong SAR (China), Chinese Taipei, and DPR Korea.

In Sub-Saharan Africa, pandemic influenza activity remains variable. Limited data suggest that the most active areas of pandemic influenza virus transmission continue to be in West Africa and in limited areas of East Africa, particularly in Rwanda. 27 percent of respiratory specimens in Ghana, and 47 percent of specimens in Rwanda, tested positive for pandemic influenza virus during mid March 2010. In Senegal, a high intensity of respiratory diseases activity was reported in association with increased detections of pandemic influenza virus. Pandemic influenza virus continues to be the predominant influenza virus circulating in West and East Africa, however, small numbers of seasonal influenza H3N2 and seasonal influenza B viruses have also been identified.

In tropical zone of the Americas overall influenza activity remains low, however, active transmission of pandemic influenza virus may be increasing, particularly across Central America and parts of South America. An increasing trend of respiratory diseases activity associated with detections of pandemic influenza virus was reported in Guatemala, Nicaragua, El Salvador, and Panama. In Brazil, 3 consecutive weeks of increases in respiratory diseases activity have been associated with regional spread of pandemic influenza virus; 3 states in northern Brazil reported increases in detections of confirmed cases, however, the extent and severity of cases is not yet know. In Mexico, 2 weeks of increases (11-14 percent per week) in ILI and SARI [severe acute respiratory infection] were reported during late February and early March 2010, however, the extent to which respiratory disease activity has been due to pandemic influenza virus is not yet known.

In Europe, overall pandemic influenza virus transmissions continued to decline or remain low in most countries. Of note, over 20 percent of sentinel specimens in Germany, Italy, and the Russian Federation tested positive for influenza, however, these increased sentinel detections of influenza virus were not associated with significant increases in overall rates of acute respiratory illness; in Italy and the Russian Federation, seasonal influenza B viruses were either dominant or co-dominant with pandemic H1N1, respectively. In Romania and in Poland, recent increases in rates of ILI or ARI have not been associated with increased detections of pandemic or other influenza viruses.

In North Africa and Western Asia, limited data suggest that pandemic influenza virus continues to circulate at low levels, as overall disease activity remained low across much of the region. In the northern and the southern temperate zones of the Americas, overall pandemic influenza transmission remained low as influenza virus continues to circulate at low levels.

In the temperate zone of the southern hemisphere, overall influenza activity remained low, with sporadic detections of pandemic and seasonal influenza viruses.

Resources:

http://www.cdc.gov/h1n1flu/

http://www.dhmh.maryland.gov/swineflu/

NATIONAL DISEASE REPORTS

No new disease outbreaks related to CDC Critical Biological Agents were reported for MWWR week 12.

INTERNATIONAL DISEASE REPORTS

CHIKUNGUNYA (MADAGASCAR): 23 March 2010, Swept by a storm a week ago, southeast Madagascar is at the same time hit by a chikungunya [virus infection] epidemic. At least 2000 cases were recorded in Mananjary. Double trouble for Malagasies. After the storm "Hubert" that has battered part of the Big Island (54 dead, 97 589 victims, and 38 188 homeless), the disease is just now the challenge. And the events unfold exactly the same area, southeast, in the region Vatovavy-Fitovinany, located in the province of Fianarantsoa. "We had an epidemic signal the end of last week [week of 8 Mar 2010]," said Dr Jean-Louis Solet, a physician epidemiologist at the interregional cell for epidemiology (CIRE), Reunion-Mayotte. There is an epidemic of chikungunya [virus infection] in the town of Mananjary, with over 2000 suspected cases identified. "The laboratory of the Pasteur Institute, based in Antananarivo has laboratory confirmed 100 [chikungunya] cases. Yet in the Malagasy press, it is reported that there are "37 cases". The daily newspaper "L'Express de Madagascar" describes the situation there: "This disease has a peculiar character. It causes a sort of paralysis of the lower limbs, paralysis that also affects the hip. Which is why local people have called it "Kilalaka 2010", referring to the "dahalo" dance which is very popular at the moment." Madagascan health officials have pressed ahead on Friday [12 Mar 2010] to see the extent of the epidemic. Furthermore, anti-mosquito actions have been conducted with support from the Malagasy Red Cross (MRC). "They have strengthened disease surveillance for the entire territory," said Dr Solet. It must be said that other outbreaks of chikungunya [disease] have been reported across the country. The chikungunya epidemic that struck the Indian Ocean between 2005 and 2006 "had not affected all regions of Madagascar, said Jean-Louis Solet. This can lead to small localized epidemics in [previously] unaffected populations. "In the region affected by this new epidemic wave, the "Hubert" storm has killed 42 people. And the natural disaster could lead to a health disaster: "At first, the storm killed many mosquitoes. But afterward, this will create many breeding sites," fears the epidemiologist. And an outbreak of chikungunya, which extends to Madagascar, can only worry Reunion [as well]. (Emerging Infectious Diseases is listed in Category C on the CDC list of Critical Biological Agents) *Non-suspect case

Q FEVER (NETHERLANDS): 21 March 2010, A total of 3645 [pregnant] goats will be culled Friday, 20 Mar 2010 on a dairy goat farm in Siebengewald. This has been announced by the Food and Consumer Product Safety Authority (VWA) of the Ministry of Agriculture. The farm has been found Q-fever infected. The total number of animals on the farm is 3900. The kidding [parturition] season has not yet started on the farm. This Limburg farm is the 77th farm in the Netherlands where pregnant animals are culled due to Q fever. (Q Fever is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/

Maryland's Resident Influenza Tracking System: www.tinyurl.com/flu-enroll

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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